

**BY THE ORDER OF  
THE COMMANDER**

**MCCONNELL AIR FORCE BASE  
INSTRUCTION 21-110**

**29 NOVEMBER 2000**

***Equipment Maintenance***

**WEIGHT AND BALANCE PROGRAM**



**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

---

**NOTICE:** This publication is available digitally on the AFDPO/PP WWW site at:  
<http://afpubs.hq.af.mil>.

---

OPR: 22 LG/QA ( )  
Supersedes MAFBI 21-110, 16 Apr 99

Certified by: 22 LG/CMS (CMSgt Anthony)  
Pages: 3  
Distribution: F

---

This operating instruction prescribes procedures concerning the Weight and Balance Program. This instruction is applicable to all 22d Logistics and 22d Operations Group personnel.

***SUMMARY OF REVISIONS***

**Paragraphs 3.3. and 6.1.1. were added.**

**1. Reference:** AMCI 21-101 *Maintenance Management Policy*, AFI 11-2K-135 Volume 3 Addenda A, AFD 21-1, *Managing Aerospace Equipment Maintenance*, AFI 21-101, *Air Force Aircraft and Equipment Maintenance Management*, and 1-1B-50 Basic Technical Order for USAF Aircraft Weight and Balance.

**2. Responsibilities:** Weight and balance procedures, if not followed correctly, can or may adversely affect aircraft performance. Procedures outlined in the references must be adhered to strictly. Direct any questions to the weight and balance managers, 22d Logistics Group Quality Assurance (22 LG/QA) building 1170.

**3. Logistics Group Quality Assurance (LG/QA) Weight and Balance Program Manager will:**

3.1. Maintain a current weight and balance letter to include the following information: Tail number, series design, basic weight, basic moment, and last update. Ensure aircrews and wing planners have up-to-date information available for mission planning. A copy of this letter will be sent out monthly to the following agencies: 22 ARW/XP, 344 ARS/CCB/CCV, 349 ARS /CCB/CCV, 350 ARS/CCB/CCV, 22 OG/OGVB, 384 ARS/CCB/CCV, 22 AGS/LGGSV, and 18 ARS/DOB.

3.2. 22 LG/QA will develop and manage a weight and balance certification program (provide a copy to 22 OG/OGV).

3.3. Weight and balance books are maintained on the aircraft in the technical order cabinet located on the aft wall of the latrine. Quality Assurance maintains the historical records in a filing cabinet within the Quality Assurance office. Each aircraft has two computer disks for backup to the weight and balance book. One computer disk is located in the historical folder and the other is located at the weight and balance program manager's desk.

**4. 22d Operations Group will:**

- 4.1. Provide alternate mission equipment (AME-21) a copy of all locally developed standardized MC-4s to ensure proper loading of aircraft.
- 4.2. Provide AME-21 any changes to the standardized local aircraft configuration (i.e. TTF, roller missions, etc.) allowing sufficient time to load aircraft. Use locally developed MC-4s for changes affecting standard configuration.
- 4.3. Make clear and concise entries in aircraft forms concerning Chart C discrepancies to include the discrepancy, item, and location. Notify Quality Assurance after making forms entry.
- 4.4. Provide 22 OSS/OSOL day-to-day MC-4 configuration sheet.

**5. 22d Aircraft Generation Squadron AME-21 Section will:**

- 5.1. Ensure an adequate number of AME-21 personnel are adequately trained and certified on properly documenting and computing the adjusted aircraft gross weight and moment on the MC-4. AME-21 personnel will be certified by 22 LG/QA.
- 5.2. Ensure all AME-21 equipment weights are available for use in determining aircraft weight.
- 5.3. Forward all AME-21 equipment weights to the 22d Operations Group Air Refueling Manager (22 OG/OGV) to aid the boom operators in mission planning and developing MC-4 request to -21 section as weights or new items are added to inventory.
- 5.4. Annotate the aircraft basic weight and index/moments from the last entry on the Chart C to the MC-4 after adding or removing equipment.
- 5.5. Compute and annotate the adjusted aircraft gross weight and index/moment on the last line on the MC-4.
- 5.6. Sign and date the MC-4 and file in the weight and balance book in front of or behind the Chart C. (Note: when above configuration is changed and equipment removed from the aircraft, remove old MC-4 from the weight and balance book.)
- 5.7. Notify weight and balance program manager when an upload or download is completed and ready for inspection (i.e. depot input, PCS, or depot return). Whenever possible uploads and downloads must be completed no later than 24 hours before crew show to ensure weight and balance program manager has sufficient time to update the Chart A and Form C.
- 5.8. Notify W&BPM of weight and balance changes by using one of the following methods, faxing (preferred), hand delivery, or email, as a last resort use the telephone for last minute changes.

**6. LSS Scheduling Element will:**

6.1. Notify W&BPM before starting and upon completion of any TCTOs affecting aircraft weight and balance.

6.1.1. Create a G081 AFTO Form 781A entry for any TCTO requiring a weight and balance update prior to next flight. Entry in AFTO 781A should read "LGQX-weight and balance book requires update due to TCTO 1C-135-XXX accomplishment."

6.2. Notify W&BPM of pending PCS and Depot arrivals or departures no later than 72 hours before departure or arrival if deviated from weekly schedule.

**7. Life Support personnel will:**

7.1. Place all life support equipment in pre-approved locations and secure on the aircraft according to day-to-day MC-4.

7.2. Notify W&BPM of weight and balance changes by using one of the following methods, faxing (preferred), hand delivery, or email, as a last resort use the telephone for last minute changes.

**8. AGS PACER CRAG program manager will work with Raytheon PACER CRAG/CFT to provide:**

8.1. Aircraft weight and balance book to the weight and balance program manager within 24 hours of receipt of aircraft. If aircraft is received on a weekend, deliver book the following duty day.

8.2. A list of TCTOs in work that may affect weight and balance of aircraft.

**9. Weight and Balance Changes and Configuration Changes.**

9.1. 22d Aircraft Generation Squadron and 22d Maintenance Squadron crew chiefs and specialists will not make any weight and balance changes/configuration changes to aircraft unless approved by the weight and balance program manager.

PHILIP F. WARING, Colonel, USAF  
Commander, 22d Logistics Group